General Studies Request Form

Please see the General Studies Request Overview and FAQ for information and quick answers.

New permanent numbered courses must be submitted to the workflow in Kuali CM before a General Studies request is submitted here. The General Studies Council will not review requests ahead of a new course proposal being reviewed by the Senate.

Proposal Contact Information

Submitter Name	Submitter Email	Submitter Phone Number
Eric Nystrom	eric.nystrom@asu.edu	80-727-1031

College/School	Department/School
College of Integrative Sciences and Arts (CLS)	College of Integrative Sciences and Arts (CBIS)

Submission Information

Type of submission:

Mandatory Review (Course or topic currently holds this designation and is undergoing 5-year review)

What is Mandatory Review?
Courses and topics previously approved for General Studies must be reviewed every five years by the General Studies Council to verify requirements are still met.

ASU Request

Is this request for a permanent course or a topic?

Permanent Course

Subject Code	Course Number	Units/Credit Hours
HST	318	3

Course Information
Courses approved for General Studies require mandatory review every five years.

Course Title

History of Engineering

Course Catalog Description

The history of engineering from the earliest record to modern times, examining the social, cultural, and economic effects on society.

Is this a crosslisted course?

No

Is this course offered by another academic unit?

Yes

Shared Departments/Schools

School of Historical, Philosophical & Religious Studies (CHSTCRIT)

Statement of Support #1	Statement of Support #2	Statement of Support #3
CLAS support_CISA_Historyof-ferings_GenStudies_Dec2022.pdf	No Response	No Response

General Studies

Requested Designation

SB - Social-Behavioral Sciences

SB: Social-Behavioral Sciences

Rationale and Objectives

Social-behavioral sciences use distinctive scientific methods of inquiry and generate empirical knowledge about human behavior, within society and across cultural groups. Courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a complex and evolving world.

In both private and public sectors, people rely on social scientific findings to consider and assess the social consequences of both large-scale and group economic, technological, scientific, political, ecological and cultural change. Social scientists' observations about human interactions with the broader society and their unique perspectives on human events make an important contribution to civic dialogue.

Courses proposed for a General Studies designation in the Social-Behavioral Sciences area must demonstrate emphases on: (1) social scientific theories, perspectives and principles, (2) the use of social-behavioral methods to acquire knowledge about cultural or social events and processes, and (3) the impact of social scientific understanding on the world.

[Revised April 2014]

Note: The following types of courses are excluded from the "SB" area, even though they might give some consideration social and behavioral science concerns:
1. Courses with primarily arts, humanities, literary or philosophical content.
2. Courses with primarily natural or physical science content.
3. Courses with predominantly applied orientation for professional skills or training purposes.
4. Courses emphasizing primarily oral, quantitative, or written skills.

An "SB" course should meet all of the following criteria. If not, a rationale for exclusion should be provided.

"SB" Criteria 1
Course is designed to advance basic understanding and knowledge about human interaction.

Identify the submitted documentation that provides evidence.

Please see attached syllabus and the assignments it describes.

How does this course meet the spirit of this criteria?

The course advances basic understanding and knowledge of human interaction by examining the formation of the engineering profession through time, and discussing how engineers have played an important role in shaping the societies that they have served, throughout the globe. The course also highlights the important historical roles played by assumptions about culture, gender, socioeconomic background, and geography, in the formation of the engineering profession and its global variations.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

Knowledge and understanding of human interaction and, in particular, how those interactions are mediated by the designers and builders of machines are woven throughout almost all of the readings listed in the course syllabus (pp. 6-8).

"SB" Criteria 2

Course content emphasizes the study of social behavior such as that found in:

History

Identify the submitted documentation that provides evidence.

Please see the attached Syllabus and the reading and assignment descriptions it contains.

How does this course meet the spirit of this criteria?

This is a History course, taught exclusively by trained historians. While there is a measure of interdisciplinarity in terms of the readings, most of them are set in a historical frame. Note that in the syllabus provided, 17 of 25 distinct readings are taken from the journal Technology and Culture which is published by the Society for the History of Technology. Note also, as an example, the second large essay, titled the "Historical Object Essay" (syllabus p.5), which is very explicitly historical.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

Please see the course readings calendar on pp. 6-8, and the Historical Object Essay assignment prompt on p.5.

"SB" Criteria 3

Course emphasizes:

b. the distinct methods of inquiry of the social and behavioral sciences (e.g., ethnography, historical analysis)

Identify the submitted documentation that provides evidence.

Please see the readings and assignments on the attached syllabus.

How does this course meet the spirit of this criteria?

Discussion of historical methods occurs throughout the course, typically in lectures which draw out points made in the class readings. While many of these themes occur regularly, some of the specific subthemes are well-illustrated by particular readings, as noted below.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

The important historical analysis methods include:
Understanding change over time (Ferguson text, weeks 2, 3, 4; Sinclair, week 5.1; Brown, week 8.1; Light, week 14.2, and many others),
Understanding application of theory to historical analysis (especially relevant in Layton, week 6.1; Hughes, week 7.1; Bryant, week 8.2; Kline and Pinch, week 10.1; Vincenti, week 10.2; Vinsel, week 14.1; and Adams, week 15.1)
Explicit discussion of utilizing multiple historical primary sources, including visual sources, and those with conflicting and/or biased accounts, and balancing those to arrive at good historical analysis (discussed especially in week 9.1 on Taylorism, where the reading packet is comprised specifically as primary and secondary sources on this topic to facilitate this discussion; also important are Brown, week 5.2; Rae, week 1.2; and Bennett, week 9.2

"SB" Criteria 4
Course illustrates use of social and behavioral science perspectives and data.

Identify the submitted documentation that provides evidence.

Please see the attached course syllabus and assignments.

How does this course meet the spirit of this criteria?

Historical analysis as well as analysis rooted in sociology are used to discuss the evolution of the engineering profession over time and the relationship between engineers and the societies and cultures they have served over time.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

Historical perspective is an essential part of the course readings (see syllabus pp. 6-8). Some readings are particularly data-heavy, including Rae (week 1.2), Brown (week 5.2), and Seely (week 11.1). Additionally, the class thoroughly discusses and utilizes the Social Construction of Technology (SCOT) theory, which has its roots in the sociology-based perspectives of Science and Technology Studies (STS) and the Sociology of Scientific Knowledge (SSK). STS-derived readings which explicitly use SCOT include Kline and Pinch (week 10.1), with a rebuttal of sorts in Vincenti (week 10.2); Bugos (week 13.1); and Vinsel (week 14.1). The professionalization of engineering is also examined through a lens originally articulated by sociologist Andrew Abbott; this perspective appears in lectures accompanying the Ferguson text in weeks 2-4, the Layton reading in week 6.1, and the Koizumi and Bassett readings in week 12.1 and 12.2, respectively. Abbott's theory of professionalization is then explicitly tackled (and modified) by the Adams reading in week 15.1.

Attach a sample syllabus for this course or topic, including the list of any required readings.

HST318_Syllabus.pdf

Attach the table of contents from any required textbook(s).

HST318_TableofContents.pdf

Attach any other materials that would be relevant or helpful in the review of this request.

318 SB Supporting Documents.pdf

Form Submission - Proposer

Submitted for Approval | Proposer

Kirbi Dorozinsky - February 24, 2023 at 9:43 AM (America/Phoenix)

Department Approval

Approved

Trisha Eardley

Manuel Aviles-Santiago - February 24, 2023 at 10:58 AM (America/Phoenix)

Cynthia Rose

Christina Villa

Rachel Diepenbrock

Provost's Office Review

Approved

April Randall

Joni Lochtefeld - March 3, 2023 at 2:39 PM (America/Phoenix)

Social-Behavioral Sciences Mandatory Review

Acknowledgement Requested

Michael Mokwa - March 29, 2023 at 3:05 PM (America/Phoenix)

Invite a Re-submission with Revision: This is an interesting and relevant course. The proposal was developed and documented adequately. The syllabus was also developed and presented adequately, and it aligned with the proposal. While the course includes some considerations of interactive human behaviors and societal perspectives, we do not have enough information to judge whether the explicit study of interactive human behavior is the dominant focus in the learning experience of the students. This must be clarified, elaborated, and demonstrated more explicitly.

L. Wallace

Michele Devine

General Studies Council Meeting

Waiting for Approval

April Randall

Joni Lochtefeld

Proposer Notification

Notification